

PUBLIC HEALTH DEPARTMENT[641]

Adopted and Filed

Rule making related to state plumbing code

The Plumbing and Mechanical Systems Board hereby amends Chapter 25, “State Plumbing Code,” Iowa Administrative Code.

Legal Authority for Rule Making

This rule making is adopted under the authority provided in Iowa Code section 105.4.

State or Federal Law Implemented

This rule making implements, in whole or in part, Iowa Code section 105.4.

Purpose and Summary

The rule making includes the adoption by reference of the Uniform Plumbing Code, 2018 Edition. The Board previously adopted the 2015 edition of the Uniform Plumbing Code (UPC). The Board is required to adopt the most recent version of the UPC by law. In addition, the amendments incorporate other clarifications to the state plumbing code that were suggested by public comment. The majority of the changes are relatively minor technical changes to better align the plumbing code with current practice. The most significant amendment is the addition of language that eliminates engineered single-stack drainage systems as provided for in Items 4 and 6.

Public Comment and Changes to Rule Making

Notice of Intended Action for this rule making was published in the Iowa Administrative Bulletin on May 22, 2019, as **ARC 4447C**. A public hearing was held on June 11, 2019, at 3 p.m. in Room 518, Lucas State Office Building, Des Moines, Iowa. Two people attended the public hearing. Both attendees also submitted written comments. Their verbal comments at the hearing were the same as their written comments.

The comments addressed four general categories: (1) overall adoption of the Uniform Plumbing Code; (2) permit, inspection, testing, and enforcement provisions; (3) single-stack drainage systems; and (4) corrugated stainless steel tubing. A summary of the comments and the Board’s responses to the comments are as follows.

Issue: Overall Adoption of the Uniform Plumbing Code

Public Comment

One comment was received. The commenter thanked the Board for selecting the Uniform Plumbing Code.

Board Response

Under Iowa Code section 105.4(1)“a,” the Board is required to adopt the most current version of the Uniform Plumbing Code.

Issue: Permit, Inspection, Testing, and Enforcement Provisions

The Board’s rule making would establish the scope of the adopted code as follows: “Local jurisdictions may administer the permit, inspection, testing, and enforcement provisions contained in this code. Permit, inspection, testing, and enforcement provisions contained in this code shall not be administered by the Plumbing and Mechanical Systems Board or the state.”

Public Comment

One comment was received. The comment urged the Board not to limit the adopted code’s scope by clarifying that no state inspections will occur. The commenter pointed out that a bill introduced in the past legislative session, 2019 Iowa Acts, House File 639, would establish and implement state

inspections, and so the Board would have to remove the scope limitation if House File 639 passes the Legislature in 2020.

Board Response

The Board may eliminate the scope limitation at a later time if House File 639 passes the Legislature during the 2020 Legislative Session, but prefers to wait and see if the bill in fact passes. If the Legislature enacts House File 639, this language in the rule may automatically be superseded. When a statute and a rule conflict, the statute prevails. A statute that implements state inspections would supersede a rule that says no state inspections will occur. The Board made no changes in response to this comment.

Issue: Single-Stack Drainage Systems

The Board's rule making provides that engineered single-stack drainage systems are not an allowable alternative engineered design.

Public Comment

Four comments were received. All four comments expressed a preference that the Board continue to allow single-stack drainage systems as a permissible alternative engineered design, particularly in certain types of projects. The comments further proposed a series of steps involving advance approval of designs, thorough training, detailed installation instructions, and frequent inspections, which the commenters asserted would ensure all single-stack drainage systems are successful and fully functional.

Board Response

Section 301.5 of the Uniform Plumbing Code requires alternative engineered designs to comply with the intent of the overall Uniform Plumbing Code. Section 310.4 of the Uniform Plumbing Code, which the Board is also adopting, already prohibits single-stack drainage and venting systems with unvented branch lines. The Board's rule provides a uniform, easy-to-apply, bright-line rule that does not allow alternative engineered designs to become a loophole circumventing Section 310.4.

Some comments suggested that disallowing future single-stack drainage systems will drive up costs. However, front-end cost savings may not create savings in the long run because once installed, an engineered system cannot be modified without re-engineering the system. Additionally, the Board has found that single-stack systems in Iowa often do not maintain the one-inch water column required under Section 901.3 of the Uniform Plumbing Code. Potential cost savings for contractors are not a compelling reason to continue utilizing single-stack systems if the cost savings come at the expense of compliance with the Uniform Plumbing Code's other provisions and overall intent.

Issue: Corrugated Stainless Steel Tubing

The Board's rule making amends paragraph 25.4(9)“c” to read as follows:

“c. Subsection 1208.6.4.4 Corrugated Stainless Steel Tubing. Delete subsection 1208.6.4.4 and insert the following in lieu thereof:

“Subsection 1208.6.4.4 Corrugated Stainless Steel Tubing. Only CSST with an arc-resistant jacket or covering system listed in accordance with ANSI LC-1 (Optional Section 5.16)/CSA 6.26-2016 shall be installed, in accordance with the terms of its approval, the conditions of listing, the manufacturer's instructions and this code, including electrical bonding requirements in Section 1211.2. CSST shall not be used for through-wall penetrations from the point of delivery of the gas supply to the inside of the structure. CSST shall not be installed in locations where subject to physical damage unless protected in an approved manner.”

Public Comment

Four comments were received. All four comments urged the Board to continue allowing both CSST with an arc-resistant jacket (black CSST) and CSST without an arc-resistant jacket (yellow CSST). The commenters suggested that yellow CSST is a safe and reliable material so long as it is (1) properly installed according to manufacturer instructions, (2) properly bonded or grounded, and (3) inspected.

Board Response

The amendment does not prohibit all CSST or require that rigid iron pipe be used. As some comments reflect, black-jacketed CSST contains additional protection beyond the protection provided by bonding and grounding. One of the Board's purposes is to protect the public. Preferring safer versions of available materials protects and preserves the public's safety and ideally will also reduce the likelihood that Iowa contractors and licensees will face significant lawsuits like the ones brought

against contractors, installers, and yellow CSST manufacturers in several other states over the course of the last 15 to 20 years.

Some commenters suggested that either bonding or a protective jacket accomplishes the same goal of lessening risk. If both bonding and a protective jacket combine to reduce risk further than either feature alone would, preferring that contractors do both helps to protect public safety. Most commenters suggested that any problem with yellow CSST is not due to the product itself but due to inadequate or improper installation of it—for example, an installation that does not follow manufacturer instructions. One commenter suggested that revisions to enforcement and inspection procedures, rather than revisions to the allowable materials, are a better solution. The Board does not necessarily disagree that rigorous and widespread inspection and enforcement can help to lessen the risk of catastrophe. However, the Board arrived at this prophylactic solution to ensure that Iowans whose properties may not be subject to inspection (because they are located outside a county or municipality that regularly performs inspections) are still afforded a baseline protection by the black-jacket arc-resistant CSST.

The amendment to Section 1208.6.4.4 is already in place in approximately a dozen local jurisdictions under the umbrella of the Central Iowa Code Consortium. Because the Board maintains (indeed, is legally required to maintain) a repository of local jurisdiction standards that are stricter than the applicable statewide code, the Board can see what local solutions the various jurisdictions develop. What is working well on a local level may also work statewide—especially if that local solution keeps Iowans safe.

After considering all public comments and responding to them, the Board did not make any changes in response to these comments. The amendments remain the same as noticed.

Adoption of Rule Making

This rule making was adopted by the Board on July 16, 2019.

Fiscal Impact

This rule making has no fiscal impact to the State of Iowa.

Jobs Impact

After analysis and review of this rule making, no impact on jobs has been found.

Waivers

Any person who believes that the application of the discretionary provisions of this rule making would result in hardship or injustice to that person may petition the Board for a waiver of the discretionary provisions, if any, pursuant to the Board's general waiver provisions contained in 641—Chapter 31.

Review by Administrative Rules Review Committee

The Administrative Rules Review Committee, a bipartisan legislative committee which oversees rule making by executive branch agencies, may, on its own motion or on written request by any individual or group, review this rule making at its [regular monthly meeting](#) or at a special meeting. The Committee's meetings are open to the public, and interested persons may be heard as provided in Iowa Code section 17A.8(6).

Effective Date

This rule making will become effective on September 18, 2019.

The following rule-making actions are adopted:

ITEM 1. Amend rule 641—25.1(105) as follows:

641—25.1(105) Adoption. Sections 101 and 102 and Chapters 2 to 17 of the Uniform Plumbing Code, 2015 2018 Edition, as published by the International Association of Plumbing and Mechanical Officials, 4755 E. Philadelphia Street, Ontario, California 91761-2816, are hereby adopted by reference with amendments as the state plumbing code authorized by Iowa Code section 105.4. Portions of this chapter reproduce excerpts from the 2015 2018 International Plumbing Code; Copyright 2014 2017; Washington, D.C.: International Code Council. Such excerpts are reproduced with permission, all rights reserved. www.ICCSAFE.org

ITEM 2. Amend rule 641—25.3(105) as follows:

641—25.3(105) Fuel gas piping. Fuel gas piping shall comply with the requirements of Chapter 12 of the Uniform Plumbing Code, 2015 2018 Edition, unless the provisions conflict with 661—Chapter 226, Liquefied Petroleum Gas, Iowa Administrative Code. Where Chapter 12 conflicts with 661—Chapter 226, the provisions of 661—Chapter 226 shall be followed.

ITEM 3. Adopt the following **new** subrule 25.4(1):

25.4(1) The following amendment shall apply to UPC Chapter 1: Section 101.2 Scope. Modify the section by adding the following sentence to the end of the section: “Local jurisdictions may administer the permit, inspection, testing, and enforcement provisions contained in this code. Permit, inspection, testing, and enforcement provisions contained in this code shall not be administered by the Plumbing and Mechanical Systems Board or the state.”

ITEM 4. Amend subrule 25.4(2) as follows:

25.4(2) The following amendments shall apply to UPC Chapter 3:

a. ~~Subsection 301.5.1 Permit Application. Delete the subsection.~~ Section 301.5 Alternative Engineered Design. Modify the section by adding the following sentence to the end of the section: “No engineered single-stack drainage system shall be installed.”

b. No change.

ITEM 5. Rescind subrule 25.4(3) and adopt the following **new** subrule in lieu thereof:

25.4(3) The following amendments shall apply to UPC Chapter 4:

a. Section 402.5 Setting. Modify the section by adding the following sentence to the end of the section that begins “Exception:”: “Sanitary napkin receptors are not dispensers and shall not be within the clear space of the water closet.”

b. Section 407.3 Limitation of Hot Water Temperature for Public Lavatories. Modify the section by adding the following sentence to the end of the section: “These devices shall be installed at or as close as possible to the point of use.”

c. Section 408.4 Waste Outlet. Modify the section by adding the following exception to the end of the section: “Exception: In a residential dwelling unit where a 2-inch waste pipe is not readily available and approval of the Authority Having Jurisdiction has been granted, the waste outlet, fixture tailpiece, trap and trap arm may be 1½ inches when an existing tub is being replaced by a shower sized per Section 408.6(2). This exception only applies where one shower head rated at 2.5 gpm is installed.”

d. Section 409.4 Limitation of Hot Water in Bathtubs and Whirlpool Bathtubs. Modify the section by adding the following sentence to the end of the section: “These devices shall be installed at or as close as possible to the point of use.”

e. Section 410.3 Limitation of Water Temperature in Bidets. Modify the section by adding the following sentence to the end of the section: “These devices shall be installed at or as close as possible to the point of use.”

f. Section 416.5 Drain. Modify the section by deleting the last sentence, which states: “Where a drain is provided, the discharge shall be in accordance with Section 811.0.”

g. Section 418.3 Location of Floor Drains. Modify the section by adding the following to the end of the section: “(5) Rooms equipped with a water heater.”

h. Section 422.1 Fixture Count. Modify the section by deleting the first paragraph and inserting the following in lieu thereof: “Plumbing fixtures shall be provided in each building for the type of building occupancy and in the minimum number shown in Table 403.1 of the International Plumbing Code, reprinted here as Table 422.1. The design occupant load and occupancy classification shall be determined in accordance with Section 1004 of the 2015 International Building Code. Required public facilities shall be designated by a legible sign for each sex. Signs shall be readily visible and located near the entrance to each toilet facility.”

i. Subsection 422.1.1 Family or Assisted-Use Toilet and Bathing Facilities. Modify the subsection by adding the following sentence to the end of the subsection: “Required family or assisted-use fixtures are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile occupancies.”

j. Table 422.1 Minimum Plumbing Facilities. Delete the table and insert the following table in lieu thereof. Exception: Projects under the jurisdiction of the state building code may use fixture counts from the 2015 International Building Code.

TABLE 422.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a

(See Sections 403.1.1 and 403.2)

(Reprinted with permission,* from the 2018 International Plumbing Code, excerpt from IPC Table 403.1)

NO.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 422.7)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 415.0)	OTHER
			MALE	FEMALE	MALE	FEMALE			
1	Assembly	Theaters and other buildings for the performing arts and motion pictures ^d	1 per 125	1 per 65	1 per 200		—	1 per 500	1 service sink
		Nightclubs, bars, taverns, dance halls and buildings for similar purposes ^d	1 per 40	1 per 40	1 per 75		—	1 per 500	1 service sink
		Restaurants, banquet halls and food courts ^d	1 per 75	1 per 75	1 per 200		—	1 per 500	1 service sink
		Gaming areas	1 per 100 for the first 400 and 1 per 250 for the remainder exceeding 400	1 per 50 for the first 400 and 1 per 150 for the remainder exceeding 400	1 per 250 for the first 750 and 1 per 500 for the remainder exceeding 750		—	1 per 1,000	1 service sink
		Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums ^d	1 per 125	1 per 65	1 per 200		—	1 per 500	1 service sink
		Passenger terminals and transportation facilities ^d	1 per 500	1 per 500	1 per 750		—	1 per 1,000	1 service sink
		Places of worship and other religious services ^d	1 per 150	1 per 75	1 per 200		—	1 per 1,000	1 service sink

TABLE 422.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a

(See Sections 403.1.1 and 403.2)

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NO.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 422.7)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 415.0)	OTHER
			MALE	FEMALE	MALE	FEMALE			
1	Assembly (cont'd)	Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink
		Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities ^f	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink
2	Business	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		—	1 per 100	1 service sink ^e
3	Educational	Educational facilities	1 per 50		1 per 50		—	1 per 100	1 service sink
4	Factory and Industrial	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	1 per 100		1 per 100		—	1 per 400	1 service sink

TABLE 422.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a

(See Sections 403.1.1 and 403.2)

(Reprinted with permission,* from the 2018 International Plumbing Code, excerpt from IPC Table 403.1)

NO.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 422.7)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 415.0)	OTHER
			MALE	FEMALE	MALE	FEMALE			
5	Institutional	Custodial care facilities	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		Medical care recipients in hospitals and nursing homes	1 per room ^c		1 per room ^c		1 per 15	1 per 100	1 service sink per floor
		Employees in hospitals and nursing homes ^b	1 per 25		1 per 35		—	1 per 100	—
		Visitors in hospitals and nursing homes	1 per 75		1 per 100		—	1 per 500	—
		Prisons ^b	1 per cell		1 per cell		1 per 15	1 per 100	1 service sink
		Reformatories, detention centers, and correctional centers ^b	1 per 15		1 per 15		1 per 15	1 per 100	1 service sink
		Employees in reformatories, detention centers and correctional centers ^b	1 per 25		1 per 35		—	1 per 100	—
		Adult day care and child day care	1 per 15		1 per 15		1	1 per 100	1 service sink
6	Mercantile	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		—	1 per 1,000	1 service sink ^e

TABLE 422.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a

(See Sections 403.1.1 and 403.2)

(Reprinted with permission,* from the 2018 International Plumbing Code, excerpt from IPC Table 403.1)

NO.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 422.7)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 415.0)	OTHER
			MALE	FEMALE	MALE	FEMALE			
7	Residential	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit	—	1 service sink
		Dormitories, fraternities, sororities and boarding houses (not transient)	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units

TABLE 422.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES ^a (See Sections 403.1.1 and 403.2) (Reprinted with permission,* from the 2018 International Plumbing Code, excerpt from IPC Table 403.1)									
NO.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 422.7)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 415.0)	OTHER
			MALE	FEMALE	MALE	FEMALE			
7	Residential (cont'd)	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		One- and two-family dwellings and lodging houses with five or fewer guestrooms	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling unit
		Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
8	Storage	Structures for the storage of goods, warehouses, storehouse and freight depots. Low and Moderate Hazard.	1 per 100		1 per 100		—	1 per 1,000	1 service sink

- a The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the International Building Code.
- b Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
- c A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted provided that each patient sleeping unit has direct access to the toilet room and provision for privacy for the toilet room user is provided.
- d The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e For business and mercantile classifications with an occupant load of 15 or fewer, service sinks shall not be required.
- f The required number and type of plumbing fixtures for outdoor public swimming pools shall be in accordance with Section 609 of the International Swimming Pool and Spa Code.

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k. Subsection 422.2.2 Family or Assisted-Use Toilet and Bathing Facilities. Modify the subsection by adding the following sentence to the end of the subsection: “Required family or assisted-use fixtures are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile occupancies.”

l. Insert the following text at the end of Chapter 4:

“422.6 Substitution for Water Closets. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies. Urinals shall not be substituted for more than 50 percent of the required water closets in all other occupancies. (Reprinted from the 2018 International Plumbing Code section 424.2)”

ITEM 6. Amend subrules 25.4(4) to 25.4(14) as follows:

~~25.4(4)~~ The following amendment shall apply to UPC Chapter 5:

~~Sections 503.0 through 503.2 Inspection. Delete the sections.~~

~~25.4(5)~~ **25.4(4)** The following amendments shall apply to UPC Chapter 6:

a. Section 603.4.8 Drain Lines. Modify the section by adding the following language to the end of the ~~section~~ last sentence in the section: “or in accordance with the manufacturer’s drain-sizing chart for installation.”

b. Section 609.1 Installation. Delete Section 609.1 and insert the following in lieu thereof:

Section 609.1 Installation. Water piping shall be adequately supported in accordance with Table 313.3. Burred ends shall be reamed to the full bore of the pipe or tube. Changes in direction shall be made by the appropriate use of fittings, except that changes in direction in copper or copper alloy tubing shall be permitted to be made with bends, provided that such bends are made with bending equipment that does not deform or create a loss in the cross-sectional area of the tubing. Changes in direction are allowed with flexible pipe and tubing without fittings in accordance with the manufacturer’s instructions. Provisions shall be made for expansion in hot-water piping. Piping, equipment, appurtenances, and devices shall be installed in a workmanlike manner in accordance with the provisions and intent of the code. Building supply yard piping shall be not less than 60 inches below earth cover.

~~b. c.~~ Section 609.11 Pipe Insulation. Delete sections 609.11 through 609.11.2 and insert the following in lieu thereof:

Section 609.11 Pipe Insulation. Insulation of domestic hot water piping shall be in accordance with the applicable energy conservation code.

~~e. d.~~ Section 611.4 Sizing of Residential Softeners. Modify the section by adding the following to the end of the last sentence in the section: “or as specified in the manufacturer’s installation instructions.”

~~d. e.~~ Section 612 Residential Fire Sprinkler Systems. Delete sections 612.0 through 612.7.2.

~~25.4(6)~~ **25.4(5)** The following ~~amendment~~ amendments shall apply to UPC Chapter 7:

a. Section 710.1 Backflow Protection. Modify the section by adding the following sentences to the end of the section: “The requirement for the installation of a backwater valve shall apply only when determined necessary by the ~~authority having jurisdiction~~ Authority Having Jurisdiction based on local conditions. When a valve is required by the ~~authority having jurisdiction~~ Authority Having Jurisdiction,

it shall be a manually operated gate valve or fullway ball valve. An automatic backwater valve may also be installed but is not required.”

b. Section 717.1 General. Modify the section by adding the following language to the end of the section: “No building sewer shall be smaller than 4 inches in diameter.”

25.4(7) 25.4(6) The following ~~amendment~~ amendments shall apply to UPC Chapter 8:

a. Section 807.3 Domestic Dishwashing Machine. Modify the section by deleting the section and inserting the following language in lieu thereof: “No domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher air gap fitting on the discharge side of the dishwashing machine, or by looping the discharge line of the dishwasher as high as possible near the flood level of the kitchen sink where the waste disposer is connected. Listed air gap fittings shall be installed with the flood level (FL) marking at or above the flood level of the sink or drainboard, whichever is higher.”

b. Section 814.5 Point of Discharge. Delete Section 814.5 and insert the following in lieu thereof:
Section 814.5 Point of Discharge. Air-conditioning condensate waste pipes shall connect indirectly to a properly trapped fixture, floor drain, or open sight drain, or where permitted in Section 814.6, to the drainage system through an air gap or air break to trapped and vented receptors, dry wells, leach pits, sump pump, the tailpiece of plumbing fixtures or indirectly to the building storm sewer through a roof drain. A condensate drain shall be trapped in accordance with appliance manufacturer’s instructions or as approved.

25.4(8) 25.4(7) The following ~~amendment~~ amendments shall apply to UPC Chapter 9:

a. Section 901.1 Applicability. Modify the section by adding the following sentence to the end of the section: “No engineered single-stack drainage systems shall be installed.”

b. Section 906.1 Roof Termination. Modify the section by deleting the last sentence.

~~*c.*~~ *c.* Section 906.7 Frost or Snow Closure. Modify the section by deleting “two (2) inches (50.8 mm)” in the first sentence and inserting “three (3) inches (76.2 mm)” in lieu thereof.

~~*b. d.*~~ *d.* Section 908.2.2 Size. Delete the second sentence in this section and insert the following new sentence in lieu thereof: “The wet vent shall be not less than 2 inches (50 mm) in diameter for 6 drainage fixture units (dfu) or less, and not less than 3 inches (80 mm) in diameter for 7 dfu or more.”

25.4(9) 25.4(8) The following ~~amendment~~ amendments shall apply to UPC Chapter 10:

a. Table 1002.2 Horizontal Lengths of Trap Arms. Delete the table and insert the following table in lieu thereof:

TABLE 1002.2
Horizontal Lengths of Trap Arms
(Except for Water Closets and Similar Features)^{1,2}

Trap Arm Diameter (inches)	Distance Trap to Vent Minimum (inches)	Length Maximum (feet)
1¼	2½	5
1½	3	6
2	4	8
3	6	12
4	8	12
Exceeding 4	2 × Diameter	12

For SI units: 1 inch = 25.4 mm

Notes:

¹Maintain ¼ inch per foot slope (20.8 mm/m).

²The developed length between the trap of a water closet or similar fixture (measured from the top of the closet flange to the inner edge of the vent) and its vent shall not exceed 6 feet (1829 mm).

b. Section 1014.1.3 Food Waste Disposers and Dishwashers. Modify the section by deleting the second sentence and inserting the following in lieu thereof: “Commercial food waste disposers shall discharge into the building’s drainage system in accordance with the requirements of the Authority Having Jurisdiction.”

~~25.4(10)~~ **25.4(9)** The following amendments shall apply to UPC Chapter 12:

~~a. Sections 1203.0 through 1203.4 Inspection. Delete the sections.~~

~~b. Sections 1204.0 through 1204.3 Certificate of Inspection. Delete the sections.~~

~~c. a. Sections 1205.0 through 1205.2 Authority to Render Gas Service. Delete the sections.~~

~~d. b. Sections 1207.0 and 1207.1 Temporary Use of Gas. Delete the sections.~~

~~c. Subsection 1208.6.4.4 Corrugated Stainless Steel Tubing. Delete subsection 1208.6.4.4 and insert the following in lieu thereof:~~

Subsection 1208.6.4.4 Corrugated Stainless Steel Tubing. Only CSST with an arc-resistant jacket or covering system listed in accordance with ANSI LC-1 (Optional Section 5.16)/CSA 6.26-2016 shall be installed, in accordance with the terms of its approval, the conditions of listing, the manufacturer's instructions and this code, including electrical bonding requirements in Section 1211.2. CSST shall not be used for through-wall penetrations from the point of delivery of the gas supply to the inside of the structure. CSST shall not be installed in locations where subject to physical damage unless protected in an approved manner.

~~25.4(11)~~ **25.4(10)** The following amendments amendment shall apply to UPC Chapter 13:

~~a. Sections 1304.5 through 1304.5.3 Construction Documents. Delete the sections.~~

~~b. Section 1320.3 1319.3 Report Items. Modify the section by deleting "Authority Having Jurisdiction" and inserting "responsible facility authority" in lieu thereof.~~

~~25.4(12)~~ The following amendment shall apply to UPC Chapter 14:

~~Sections 1406.0 through 1406.4 Required Inspection. Delete the sections.~~

~~25.4(13)~~ The following amendments shall apply to UPC Chapter 15:

~~a. Section 1501.3 Permit. Delete the section.~~

~~b. Section 1501.6 Operation and Maintenance Manual. Modify the section by deleting "required to have a permit in accordance with Section 1501.3" from the first sentence.~~

~~c. Subsection 1501.11.2.1 Visual System Inspection. Modify the subsection by deleting "by the Authority Having Jurisdiction and other authorities having jurisdiction" from the first sentence.~~

~~d. Subsection 1501.11.2.2 Cross-Connection Test. Modify the subsection by deleting "by the applicant in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction" from the first sentence.~~

~~e. Subsection 1501.11.2.3 Discovery of Cross-Connection. Modify the subsection by deleting "in the presence of the Authority Having Jurisdiction."~~

~~f. Section 1503.2 Permit. Delete the section.~~

~~g. Section 1504.2 Plumbing Plan Submission. Delete the section.~~

~~h. Section 1504.5 Initial Cross-Connection Test. Modify the section by deleting "by the applicant in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction," and by deleting the final sentence ("The test shall be ruled successful by the Authority Having Jurisdiction before final approval is granted.").~~

~~25.4(14)~~ The following amendments shall apply to UPC Chapter 16:

~~a. Section 1602.2 Plumbing Plan Submission. Delete the section.~~

~~b. Section 1602.5 Initial Cross-Connection Test. Modify the section by deleting the second and third sentences ("Before the building is occupied or the system is activated, the installer shall perform the initial cross-connection test in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction. The test shall be ruled successful by the Authority Having Jurisdiction before final approval is granted.").~~

~~c. Subsection 1602.11.2.1 Visual System Inspection. Modify the subsection by deleting "by the Authority Having Jurisdiction and other authorities having jurisdiction."~~

~~d. Subsection 1602.11.2.2 Cross-Connection Test. Modify the subsection by deleting "by the applicant in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction."~~

~~e. Subsection 1602.11.2.3 Discovery of Cross-Connection. Modify the subsection by deleting "in the presence of the Authority Having Jurisdiction."~~

ITEM 7. Amend rule 641—25.5(105), introductory paragraph, as follows:

641—25.5(105) Backflow prevention with containment. Cities with populations of 15,000 or greater as determined by the 2010 census or any subsequent regular or special census shall have a backflow prevention program with containment. The minimum requirements for a program are given in subrules 25.5(1) through 25.5(5). These requirements are in addition to the applicable requirements of Section 603 of the Uniform Plumbing Code, ~~2015~~ 2018 Edition.

ITEM 8. Amend subrule 25.5(1), introductory paragraph, as follows:

25.5(1) Definitions. The following definitions are added to those in Chapter 2 and Section 603 of the Uniform Plumbing Code, ~~2015~~ 2018 Edition, or are modified from those definitions for the purposes of rule 641—25.5(105) only.

ITEM 9. Amend paragraph **25.5(1)“b”** as follows:

b. Approved backflow prevention assembly for containment. Approved backflow prevention assembly for containment means a backflow prevention assembly which is approved by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research. The approval listing shall include the limitations of use based on the degree of hazard. The backflow prevention assembly shall also be listed by the International Association of Plumbing and Mechanical Officials (IAPMO) or by the American Society of Sanitary Engineering (ASSE) as having met the requirements of one of the standards listed below.

Standard	Product Covered
ANSI [□] /ASSE* 1013-2009	Reduced Pressure Principle Backflow Preventers
ANSI [□] /ASSE* 1015-2009	Double Check Backflow Prevention Assembly
ANSI [□] /ASSE* 1047-2009	Reduced Pressure Detector Backflow Preventer
ANSI [□] /ASSE* 1048-2009	Double Check Detector Assembly Backflow Preventer
ANSI [□] /AWWA [†] C510-07	Double Check Valve Backflow Prevention Assembly
ANSI [□] /AWWA [†] C511-07	Reduced-Pressure Principle Backflow Prevention Assembly

[□]American National Standards Institute, ~~1819~~ 1899 L Street NW, 11th Floor, Washington, DC 20036

*American Society of Sanitary Engineering, ~~901 Canterbury Road, Suite A, Westlake, OH 44145~~ 18927 Hickory Creek Drive #220, Mokena, IL 60448

[†]American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235

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